

A Safe Ride for Children with Special Needs

Every Child Deserves the Best Protection!

**Child
Safety
Facts**
2005

Introduction

Every child deserves the best possible protection from injury while riding in a motor vehicle. Some state car seat laws exempt children with medical conditions, but any child riding without proper protection is at risk of injury even in a minor crash.

Your child may have a condition that affects his ability to fit in or use a regular car seat (child safety seat), booster seat, or seat belt. There are car seats that are designed and tested for most special needs. Do not be tempted to make changes to your car seat so it will fit your child.

Children with these conditions may need special assistance in cars:

- **Too small:** Car seats for children their age and stage of development are too big.
- **Too big:** Child has outgrown a regular car seat but still needs support.
- **Difficulty sitting upright:** Child needs extra support.
- **Medical fragility:** Conditions (such as breathing problems, tracheostomy, or brittle bones) requiring special features or positioning.
- **Difficulty staying in car seat:** The child is too active to stay buckled.

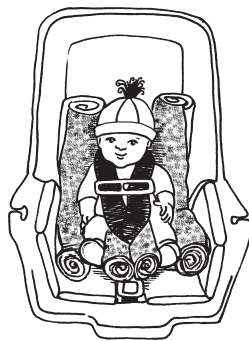
If you are unsure about which kind of car seat to use, talk with a physician, nurse, or therapist who works with your child and knows about car safety. (See Resources on page 4 for more information and a list of trained people.)

Premature infants

Premature and low birth weight infants are too small to fit well into many car seats sold for use at birth. A few may need to use a car bed (p. 2).

Choose a car seat labeled for use from birth if your baby weighs less than 5 pounds. (But many car seats start at 5 pounds.) Often an infant-only seat will fit well and be convenient.

Get a car seat that has a harness without a shield. Make sure the harness has low shoulder strap slots and a short distance from crotch strap to back. Many have shoulder slots less than 6–7 inches high.



Newborn in car seat with padding along sides and in crotch

Pad the sides and crotch with rolled baby blankets (picture).

Be sure that the newborn baby's head does not fall forward.

Tilt the car seat back slightly so the baby's head does not flop, but never tilt the seat more than halfway back (picture, page 2).

Some car seats have an adjustable base for tilting the seat. If yours does not, put a tightly rolled towel or firm foam roll under the car seat.

A premie should ride facing the rear until **at least** 12 months after their full-term due date and at least 20 pounds. Even a toddler is safer rear-facing.

*Make
Every Ride
A Safe Ride*



Car Safety Basics

- ✓ Use a car seat that fits your child's weight, development, and condition. See Four Stages of Child Passenger Protection, page 2.
- ✓ Avoid modifying any car seat. If the one you have doesn't match your child's needs, find another that does.
- ✓ Follow car seat instructions and the vehicle owner's manual.
- ✓ Make shoulder straps snug to keep the child in the seat. You should not be able to pinch slack in the straps between your finger tips.
- ✓ Install the car seat securely. Make the seat belt tight. Use a top tether strap if one is available. If both vehicle and car seat have "LATCH" attachments, use them instead of the seat belt if they make the car seat fit tighter. LATCH can not be used for children over 40 to 50 pounds (check label).
- ✓ Buckle up children in back whenever possible. The back seat is safer than the front, with or without an air bag.
- ✓ NEVER transport a child rear-facing in the front seat of a vehicle with a passenger air bag unless the air bag has an on/off switch and has been shut off.
- ✓ Some new vehicles have side-impact air "curtains" in the back seat. These may help protect children buckled up. Do not allow a child to lean against the window or door of such vehicles.
- ✓ The rear-facing position is the safest. Infants should ride facing the rear to at least age one, longer if possible.
- ✓ If you have questions, find a Special Needs Car Seat Technician in your area (see Resources, page 4).

Four Stages of Child Passenger Protection

There are four stages to follow as a child grows. Some car seats (child safety seats or child restraints) within each stage may have different weight limits.

Stage 1: Rear-facing car seat (or car bed). Use infant-only car seats or convertible car seats (seats that face the rear for infants and forward for toddlers). Car beds are for use by babies who have a medical need to lie flat.

An infant from birth to at least age 1 **and** to at least 20 pounds should ride facing the rear of the vehicle. Rear-facing is preferred even after the first birthday, within the weight limits of the car seat.

A premature infant should stay rear-facing until at least 12 months after his full-term due date.

Stage 2: Forward facing car seat with harness. A child who is at least 1 year of age **and** at least 20 pounds may ride facing forward. Use a convertible seat or a forward-facing "combination" car seat/booster.

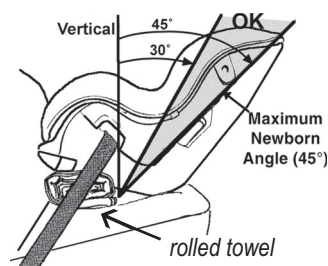
A few products with harnesses can hold a child weighing up to 80+ pounds. These are very useful for children needing extra support. (See product list on page 4.)

Stage 3: Booster seat with lap-shoulder belt. Above 40 pounds, use a belt-positioning booster seat if it provides enough support. It raises the child so the lap-shoulder belt fits well. Use a booster until the child fits the seat belts. Many boosters have high backs with shoulder belt guides and side wings to help support a child's head.

If more support is needed or no shoulder belt is available, use a car seat or vest with a high maximum weight.

Stage 4: Seat belt. Use a seat belt for a child who has grown tall enough so it fits properly. A lap-shoulder belt is better than a lap belt. Use the 5-Step Test for seat belt fit (see www.carseat.org).

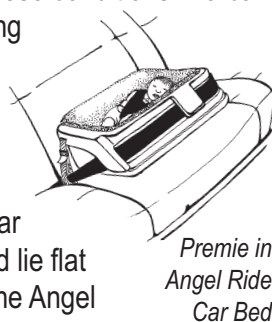
Adjust car seat recline angle with a rolled towel under base if it does not have an adjustable base.



Premie breathing problems

Some premature infants have breathing problems when seated in a car seat. The American Academy of Pediatrics recommends that all infants born earlier than 37 weeks be monitored for these conditions in a car seat before going home.

If an infant shows signs of breathing problems in a car seat, she should lie flat in a car bed. The Angel Ride Car Bed holds infants weighing as little as 3.5 pounds if the harness fits snugly.

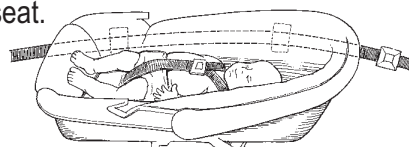


Infants lying flat

Infants with breathing concerns, spina bifida, brittle bone disease, and some other conditions may need to lie flat. There are three car beds available: Angel Ride Infant Car Bed (picture above, 3.5 to 9 pounds), Cosco Dream Ride (5 to 20 pounds, picture below), Snug Seat Car Bed, (4 to 21 pounds).

Install the car bed so your baby's head is **not** next to the vehicle door. This keeps the head away from any possible impact point.

Use the car bed until the doctor tells you that it is no longer needed. Then move your baby into a rear-facing car seat.



Cosco Dream Ride used as car bed

Toddlers facing rearward

A child is safest in the rear-facing position even after the first birthday.

If your baby weighs less than 20 pounds at age 1, it is very important to keep him rear-facing to **at least** 20 pounds. The rear-facing position also works well for toddlers who are fragile or have poor head control.

Most convertible seats have a weight limit of 30 to 35 pounds when rear-facing. A child can ride rear-facing until 1) he is at the highest rear-facing weight limit for the seat, or 2) his head is 1 inch below the top of the car seat.



A toddler is safer riding in a rear-facing convertible seat as long as it fits.

Children very small for their age

Some older children are much smaller than others of the same age. It is important to keep them in car seats or boosters that fit them. Do not refer to their car seat or booster as a "baby seat." Let your child help pick out her seat. Some cover designs look more grown up than others do.

Avoid putting her in a seat belt until it fits well. (See Stages, left column.) Seat belts that do not fit well can cause serious injury in a crash. Proper seat belt fit depends on size, not age. A booster seat used with a lap-shoulder belt will help make seat belts fit better.

Infant or child in a spica cast or splint

Some types of hip casts make it impossible for an infant or child to fit in most car seats. A child over age 1 may fit into a forward-facing car seat or booster with low sides. This depends

on the shape of the cast. Discuss this with your child's doctor to see if casting can be done so that the child still fits in her car seat.

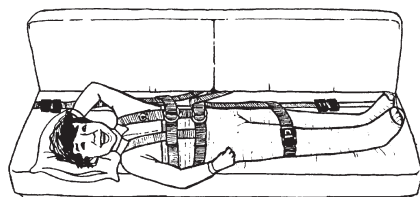


Child with spica cast in Spelcast car seat

The Spelcast car seat (left, discontinued) may be offered for loan by some hospital programs. (A similar product may be available soon.)

Travel Tips for Children with Special Needs

- The safest way for a medically fragile child to ride depends on her size and condition. Limit travel as much as possible to reduce the risk of a crash.
- The back seat is safest place for children. If your child needs to be watched at all times, have an adult ride in the back seat with him.
- Be prepared to stop often on long rides.
- If you must transport your child in the front seat, be sure the air bag has an on/off switch that has been turned off (see page 4).
- Have a medical care plan with you in case of an emergency. Take along the names and numbers of health care providers and equipment suppliers.
- If your child needs battery-powered equipment, make sure you have enough power for twice the expected travel time.
- Secure medical equipment to limit movement in the vehicle during a crash. Buckle an unused seat belt around it or wedge it with pillows on the floor.
- Make sure that all caregivers who transport your child in their vehicles follow your directions about buckling up your child.



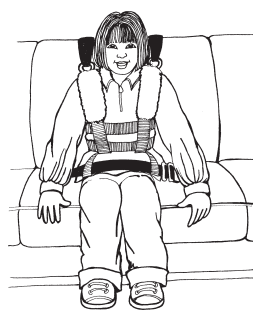
Modified E-Z-ON Vest for a larger child in a cast

Child lying flat

A child in a body cast or with a condition requiring him to lie flat can use the Modified E-Z-ON Vest. It has been designed and tested for this purpose and comes in several sizes (20 to 100 pounds, 2 to 12 years old). The child lies across the back seat (picture above). Two seat belts are used to anchor the vest and leg strap.

Child with a tracheostomy

A child with a tracheostomy (breathing tube in the front of the neck) usually can sit comfortably in a regular car seat or booster. Use a car seat with a five-point harness. Avoid using a car seat with a shield. The child's neck could hit the shield in a crash, injuring the child or affecting breathing.



E-Z-ON Vest gives support. It must have a top tether strap installed in a car or be anchored with a cam wrap in a school bus.

Child needing support or positioning

Many children with cerebral palsy or other neuromuscular conditions are not able to sit up well without support. The harness of regular car seats give enough support for many.

Using a reclining car seat allows the head to rest comfortably. Many convertible car seats can be used rear-facing up to 30 to 35 pounds (see picture, page 2).

When a child is large enough so he or she must face forward, the car seat harness gives support. Many car seats tilt back enough to give some head support. Many convertible car seats can be adjusted to a more reclined position while facing forward (check the car seat instructions).

If the child needs more head support, use a very soft neck collar to help keep the head up. Do not fasten the head to the car seat with a band during travel. Attaching the head separately with a band or using a stiff collar could cause injury in a crash.

If your child weighs more than 40 pounds and can control her head, try one of these products:

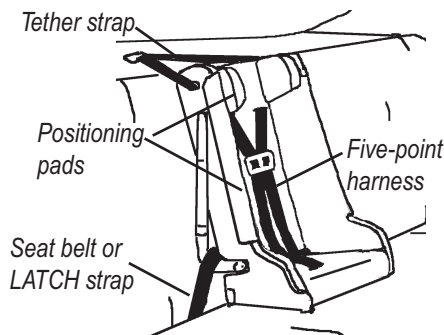
- E-Z-On Vest (child to adult sizes)
- A car seat with a harness that can be used above 40 pounds (see list, page 4).

Support & Positioning Tips

- A physical or occupational therapist can help you use rolled towels, blankets, or foam wedges to pad along the child's body and head. Some children need towel rolls behind the neck, in the crotch, or under the knees.
- Do not put extra padding **under** the child or behind his back. Thick pads or clothes may prevent the harness from fitting snugly enough to hold him in a crash.

Exception: If a child is using a Spelcast, a firm folded sheet can fill the space behind the back.

- If a child is large enough for a seat belt to fit, do not recline the vehicle seat back. In a crash, a reclining child could slide out legs first under the lap belt. This could cause serious injury.



A specialty seat for children needing trunk and head support. The tether strap anchors it at the top.

Specialty car seats for children from 20 to 100+ pounds provide positioning pads and head support for child passengers. Most must be installed with a tether strap and seat belt. LATCH use is limited (see car seat instructions and vehicle owner's manual). Many have stroller bases for use outside the car.

Crashworthy wheelchairs

Some wheelchairs now meet a voluntary standard (WC/19) for crash protection in a motor vehicle. Some are made for children.

A child in a wheelchair should be moved into a child restraint if possible. A wheelchair used in a vehicle should be anchored facing forward with four tie-down straps. A separate lap-shoulder belt must be used for the child. Remove any hard objects (such as a tray) attached to the chair in front of the child and stow them for travel.

For more about specialty car seat and wheelchair makers, see Resources.

Behavior issues

A child who often gets out of his booster or seat belt may need a harness that he cannot get out of easily. One model of the E-Z-ON Vest opens in the back, out of a child's reach. Anchor the vest with a tether strap and the seat belt.

Air bag on/off switches

If a child requires monitoring and must ride next to the driver, you can get permission to install an air bag on/off switch from NHTSA. Most small trucks and sports cars have on/off switches.

School bus transport

Young children with special needs often ride on school buses. Appropriate transport (including car seats or other devices) should be part of the individual education plan (IEP) for each child. Parents should make sure that they understand and agree with what is recommended.

The school bus must have factory-installed lap belts or lap-shoulder belts on the bus for installing car seats. Belts must meet federal safety standards. NHTSA has guidelines for transporting preschoolers on school buses (see Resources).

Contacts, also see Resources

- your child's doctor, nurse, or physical or occupational therapist (PT/OT)
- PT/OTs with child passenger safety training (Technician list, Riley Hosp., www.preventinjury.org/specNeeds.asp)
- Nat. Program for Safe Transportation of Children with Special Needs (Resources)

Car beds

Angel Ride Infant Car Bed: Angel Guard Products, from Mercury Distributing, 800-815-6330, www.mercurydistributing.com
 Dream Ride car bed: Dorel (Cosco), 800-544-1108, www.djgusa.com
 Snug Seat Car Bed: Snug Seat, 800-336-7684, www.snugseat.com

For children over 40 pounds

Airway (50 lb.): Combi (from Car Seat Specialty), 800-992-6624, www.combi-intl.com
 Traveler Plus (105 lb.), Britax product, sold by Snug Seat (contacts above)
 Marathon & Wizard (65 lb.), Husky (80 lb.): Britax, 888-427-4829, www.britaxusa.com
 E-Z-ON Vest & Modified E-Z-ON Vest, (child/adult sizes), Ride Ryte (harness/booster combination): E-Z-On Products, 800-323-6598, www.ezonpro.com

For updated product list: www.saferidenews.com

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ABLEDATA, website for assistive technology: www.abledata.com (go to Product Info, Product Type, Transportation, Vehicle, Vehicle Accessories General)

American Academy of Pediatrics

(AAP): Policy statements on safety issues (low birthweight infants, children with special needs, restraints on school buses), *Car Safety Seats for Children with Special Needs* (detailed guidelines); 847-228-5005 or www.aap.org/family/cps.htm

NHTSA (National Highway Traffic

Safety Administration): General child restraint information, recalls, air bag switches, and school bus safety information; the **Auto Safety Hotline**, 888-DASH-2-DOT or 800-424-9153 (tty), www.nhtsa.dot.gov

Nat. Program for Safe Transportation of Children with Special Health

Care Needs, Riley Hospital for Children, Indianapolis, IN; materials, consultation; professional training; 800-755-0912, 317-274-2977, www.preventinjury.org/specNeeds.asp

State/local assistance programs:

Some Easter Seal affiliates, children's hospitals, and special education centers have car seat loan programs for specialty products or other related services. Call local institutions or your state's office of traffic safety.

SafetyBeltSafe U.S.A., national advocacy organization for child passenger safety; Helpline: 800-745-SAFE (7233), www.carseat.org

Safe Ride News, Professional subscription publication and fact sheets on child safety, 800-403-1424, www.saferidenews.com

Special Needs Car Seat Technician:

See Riley Hospital list at www.preventinjury.org/specNeeds.asp

Wheelchairs for motor vehicle use:

free pamphlet from UMTRI, 734-764-2171, www.travelsafer.org